

ABSTRACT

5 The present invention provides a linear motor, which can improve motor efficiency and which can be manufactured by simplified procedure. The linear motor of the present invention comprises a movable unit 21 in cylindrical shape and having the central axis at the intersection of X-axis and Y-axis, an inner yoke 22 arranged on inner side of the movable unit 21 with a given spacing in radial direction of the movable unit 21 and being formed by laminating a multiple of thin plates each in approximately rectangular shape and having high magnetic permeability arranged in direction of X-axis, an outer yoke 24 arranged on outer side of the movable unit 10 with a given spacing in radial direction of the movable unit 21 and being formed by laminating a multiple of thin plates 25 each in approximately rectangular shape arranged in the same direction as the thin plates 23 of the inner yoke 22, and a pair of permanent magnets 33 and 34 magnetized in a direction from the inner yoke 22 to the outer yoke 24.

15 Therefore, the thrust force of the linear motor is not turned to unstable, and motor efficiency can be improved, and this facilitates the manufacture of the linear motor.